5

10

APPARATUS AND MANUFACTURING METHOD FOR BORDER LIGHTING

ABSTRACT OF THE DISCLOSURE

A border lighting strip (10) includes an electrical cable (14) having a plurality of electrical conductors (14A, 14B). A plurality of light emitting devices (LEDs) (12) arranged alongside the electrical cable (14) and electrically connected (12A, 12B) thereto. An essentially hollow extruded sheath (16) of translucent or transparent material is adapted to receive the LEDs (12). The sheath (16) also includes an integrally formed cylindrical lens (18) arranged to optically cooperate with the LEDs (12). A method (200) for manufacturing a lighting strip includes electrically connecting (202, 204, 206, 208) a plurality of light emitting devices to an electrical cable to form a linear light source (214), extruding (216) a transparent or translucent sheath adapted to receive the linear light source (214), and inserting (218) the linear light source into the extruded sheath to form the border lighting strip (220).

Reference	Component
Character	
10	border lighting tube
12	light emitting element
12A	Lead of light emitting element 12
12B	Lead of light emitting element 12
14	electrical cable
14A	Electrical wire of the cable
14B	Electrical wire of the cable
16	transparent or translucent sheath or tube
18	integral lens
20	not used
22	mount for light emitting element 12
24	opening in mount 22 where the cable 14 passes
100	border lighting tube, 2 nd embodiment
112	light emitting element, 2 nd embodiment
112A	Lead of light emitting element 112, 2 nd embodiment
112B	Lead of light emitting element 112, 2 nd embodiment
114	electrical cable, 2 nd embodiment
114A	Electrical wire of the cable, 2 nd embodiment
114B	Electrical wire of the cable, 2 nd embodiment
116	Transparent/translucent sheath or tube, 2 nd embodiment
118	integral lens, 2 nd embodiment
120	not used
200	Manufacturing method
202	Attach an LED to a mount
204	Repeat attaching 202 for all LEDs
208	Attach a mount to the cable
210	Repeat attaching 208 for all mounts
214	Linear light source formed
216	Extrude the sheath
218	Insert the linear light source 214 into the extruded 216 sheath
220	Border lighting formed